

PROJECT NUMBER: 2307  
PROJECT TITLE: Flavor Investigation/Nonvolatile Flavor  
Investigation/Processed Tobacco  
PROJECT LEADER: W. R. Raymond  
PERIOD COVERED: January, 1989

I. FLAVOR INVESTIGATION:

A. Objective: To provide analytical support for activities related to development and application of flavoring materials.

B. Results:

1. Analytical Support: Flavor and casing analyses have been completed for several factory trials including Merit Lts., Japan, POL 3598, Marlboro Std. VI, Famous and Half-Pint. Concentrate, filler and A/C analyses for anethole and vanillin were completed for Europe Marlboro.
2. Project ART: Flavor analytical specifications were completed for ART flavor formulae transmittals. A revised cooked flavor for ART casing was developed, analyzed and subjectively compared to the original flavor with promising results. All packaging materials for ART Ad-Pack were analyzed for residual solvent content by headspace GC. All were released for semi-works production.
3. Low Density Rod: GC analyses were completed of anethole in filler distillate/extracts for an LDR flavor survival study.
4. Semi-Works A/C Optimization: Five A/C samples and 60 filler samples were analyzed for anethole for Phase 2 of an A/C application optimization study in Semi-works. The study is complete and a report is expected shortly.
5. TRIM: GC analysis continued of three TRIM A/C's (6 month old) to determine storage stability.
6. Work continued to adapt for Flavor Development use a GC-TCD method for determination of water, ethanol, PG, and glycerin in casings and A/C's.

II. PROCESSED TOBACCO:

A. Objective: To develop basic and applied knowledge for the purpose of improvement or selective modification of subjective properties of processed tobaccos.

B. Results:

1. ART Stem Utilization: Results were returned from POL 3609, testing post-ART stem substitution for 1/6 of Bright stem in RL's (Marlboro Blend). Panelists found significant

differences between the test and control Marlboro. Marlboro smokers preferred the control, rating it higher on mild taste, good taste and aftertaste while Winston smokers rated the test higher on fast burn and dry taste. Since more recent pilot RL's with 1/3 and 1/6 levels of post-ART stem have shown similar subjective results, lower utilization levels will be tested.

2. Dry Flavor Replacement: Recent native roasted JONEX submissions from two alternate vendors have moved closer to each other and to the original vendor material in composition. Solid extracts have been prepared and analyzed and will be incorporated in pilot RL sheet for subjective comparison to the original material.